

ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM

Plant Abstract

Element Code: PDAST11041

Data Sensitivity: No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Balsamorhiza hookeri* var. *hispidula*

**COMMON NAME:** Hairy balsamroot, a balsamroot, Sharp's balsamroot

**SYNONYMS:** *Balsamorhiza hispidula* (Sharp)

**FAMILY:** Asteraceae

**AUTHOR, PLACE OF PUBLICATION:** *Balsamorhiza hookeri* var. *hispidula* (W.M. Sharp) Cronquist, Vasc. Pl. Pacific North W. 5: 103. 1955. *Balsamorhiza hispidula* W.M. Sharp, Ann. Missouri Bot. Gard. 22: 137, tab. 5, fig. 3. 1935. *Balsamorhiza hookeri* Nutt., Trans. Am. Phil. Soc. II. 7: 349. 1840.

**TYPE LOCALITY:** *B. hispidula*: Lake Point, Tooele County, Utah, United States of America. Elevation 4300 feet.

**TYPE SPECIMEN:** HT – UC. M.E. Jones 1727, 20 May 1880. IT – F, NY, RM.

**TAXONOMIC UNIQUENESS:** *Balsamorhiza* is 1 of 440 genera in the family Asteraceae, and contains 13 species. The variety *hispidula* is 1 of 6 in the species *B. hookeri*.

**DESCRIPTION:** The species *B. hookeri* is a native, cool-season, perennial forb. The solitary flower heads are on stalks which generally reach 10-40 cm (4-16 in) in height. The coarse, basal leaves reach 5-30 cm (2-12 in) in length and 1.5-10 cm (0.6-4 in) in width. The species grows from a thick, carrotlike, resinous taproot surmounted by a simple or occasionally few-branched crown. Fruit is a glabrous achene. (Holifield, 1987).

Detailed description of species: "Perennial scapose herbs from a thick taproot, mainly 0.9-4.5(5.2) dm tall (3.5-18(20.5) in); leaves 6-30 cm (2.4-12 in) long and 1.5-11 cm (0.6-4.3 in) wide, pinnatifid or bipinnatifid, the segments to 5.5 cm (2.2 in) long; peduncles naked or with a few inconspicuous, linear, entire or pinnatifid bracts near the base; heads solitary; involucre 13-24 mm high, 21-47 mm wide, the bracts lance-linear, evenly tapering to the apex or somewhat enlarged at the base, long-ciliate, glandular to tomentose dorsally; rays mainly 10-16, yellow, 16-40 mm long; achenes glabrous." (Welsh et al., 1993)

**AIDS TO IDENTIFICATION:**

**ILLUSTRATIONS:** Color photos of plant and flower of species (St. Mary's College of California, 1995, in CalPhotos – <http://elib.cs.berkeley.edu/cgi/>)

Line drawing of species (USDA, Forest Service, 1988)

Color photos of Isotypes

([http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail\\_list?this\\_id=4356658](http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list?this_id=4356658))

Color photos of Isotypes

([http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail\\_list?this\\_id=4361591](http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list?this_id=4361591))

Color photos of species (Gary A. Monroe, in <http://plants.usda.gov>)

Color photo of species in habitat (Margaret Williams, in <http://plants.usda.gov>)

**TOTAL RANGE:** The range of *B. h.* var. *hispidula* is widespread throughout the Great Basin and includes the states of Washington, Idaho, Nevada, Utah, Colorado, Arizona, and possibly Wyoming. The species *B. hookeri* is irregularly distributed from the east side of the Cascades southward to California, Nevada, southern Utah, northern Arizona, and extends east to northwest Colorado and southwest Wyoming. The species does not occur in Oregon.

**RANGE WITHIN ARIZONA:** Black Rock Mountain, Mohave County.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Perennial herb.

**PHENOLOGY:** The species *B. hookeri*, begins growth and flowers early in the spring.

**BIOLOGY:** Unknown

**HABITAT:** Stands of *B. hookeri* are often sparse. It is not listed as a climax indicator. The species grows on dry plains and hillsides, gravelly banks, and rocky outcrops in the foothills and lowlands within its range (Holifield, 1987).

**ELEVATION:** 6,200 - 6,400 ft (1891-1952 m). For the species, the elevation ranges from 2,500 to 6,400 ft (763-1952 m). Holifield (1987), indicates that the elevation for the species ranges up to 5,500 ft (1676 m).

**EXPOSURE:** East facing slope.

**SUBSTRATE:** In Arizona, basalt, volcanic ash slope. Rocky alkaline soil for the species (CalFlora, accessed 2002).

**PLANT COMMUNITY:** The species occurs in sagebrush scrub, northern juniper woodland, and yellow pine (CalFlora, accessed 2002). According to Holifield (1987), "*B. hookeri* occurs in bunchgrass, sagebrush, mountain brush, salt desert shrub, pinyon-juniper, and ponderosa pine habitat types and plant communities." In Arizona, *B. h.* var. *hispidula* occurs with *Arctostaphylos*

(Manzanita), *Artemisia tridentata* (big sagebrush), *Juniperus* (juniper), and *Pinus* (pine), (Brown, 1978 and 1979 collections).

**POPULATION HISTORY AND TRENDS:** Unknown

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** None  
**OTHER STATUS:** None (USDI, BLM AZ 2005)  
[Bureau of Land Management Sensitive (USDI, BLM 2000)]

**MANAGEMENT FACTORS:** The species *B. hookeri* greens up early in the spring and is probably of some value as forage for livestock and wildlife. Palatability of the species ranges from poor to good for all classes of livestock. (Holifield, 1987).

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** BLM – Arizona Strip Field Office.

### **SOURCES OF FURTHER INFORMATION**

#### **REFERENCES:**

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#### MAJOR KNOWLEDGEABLE INDIVIDUALS:

#### ADDITIONAL INFORMATION:

“Both the generic name *Balsamorhiza* (*balsamon*=balsam; *rhiza*=root) and the common name balsamroot refer to the thickened, resinous taproots common to all the western species. These roots have a thin corky bark and a fibrous yellowish center, and were once used by the Indians for food.” (USDA, Forest Service, 1988).

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